AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended) A method of sintering a valve metal powder to form a porous bonded valve metal powder comprising sintering said valve metal powder in the presence of at least one iodine source to form said porous bonded valve metal powder, ~~wherein said iodine source is a gas or a liquid~~ wherein said porous bonded valve metal powder has a shrinkage diameter of 0.5% or less.

2. (Previously presented) The method of claim 1, wherein during said sintering, a valve metal-iodine compound temporarily forms.

3. (Original) The method of claim 1, wherein said iodine source is a gas.

4. (Original) The method of claim 1, wherein said iodine source is a liquid.

5. (Canceled)

6. (Original) The method of claim 1, wherein said sintering occurs in a vacuum furnace or reactor.

7. (Original) The method of claim 1, wherein said sintering occurs in a vacuum furnace that has an isolatable trap.

8. (Original) The method of claim 2, further comprising collecting at least a portion of said valve metal-iodine compound in an isolatable trap for reuse.

9. (Previously presented) The method of claim 1, wherein said valve metal powder is tantalum.

10. (Previously presented) The method of claim 1, wherein said valve metal powder is niobium.

11. (Original) The method of claim 2, wherein said valve metal-iodine compound is tantalum iodide.

12. (Original) The method of claim 2, wherein said valve metal-iodine compound is TaI_5 or NbI_5.

13. (Original) The method of claim 1, wherein said sintering is at a temperature of less than about 1200° C.

14. (Original) The method of claim 1, wherein said sintering is at a temperature of from about 350 to about 900° C.

15. (Original) The method of claim 1, wherein said sintering is at a temperature of from about 450 to about 850° C.

16. (Original) The method of claim 1, wherein said sintering is at a temperature in which the predominate sintering mechanisms comprise surface diffusion and evaporation/condensation.

17. (Original) The method of claim 1, wherein said sintering is for a time of from about 10 minutes to about 50 hours.

18. (Previously presented) The method of claim 2, wherein said valve metal powder and said valve metal-iodine compound are present in equilibrium.

19. (Original) The method of claim 6, wherein said vacuum furnace further comprises an isolatable addition system for containing an oxygen getter.

20. (Original) The method of claim 6, further comprising deoxidizing said valve metal within said vacuum furnace.

21. (Original) The method of claim 1, wherein at least one oxygen getter is present during said sintering.

22. (Original) The method of claim 21, wherein said oxygen getter comprises magnesium.

23. (Previously presented) A method of sintering a valve metal comprising sintering said valve metal in the presence of at least one iodine source to form a sintered valve metal, and further

comprising deoxidizing before, during, and/or after said sintering.

24. (Original) The method of claim 23, wherein said deoxidizing is a magnesium deoxidizing.

25 - 26. (Canceled)

27. (Currently amended) A method of forming a sintered valve metal powder, comprising:

sintering a valve metal powder in the presence of an iodine source within a container; and

deoxidizing said sintered valve metal powder in the presence of an oxygen getter within said container, wherein said valve metal powder is niobium or wherein said valve metal powder is tantalum powder having a BET of from about 0.1 m^2/g to about 10 m^2/g, a Scott density from about 10 g/in^3 to about 40 g/in^3, a particle size from about 30 nm to about 10 microns, and an agglomerate size of from about 0.1 micron to about 1,000 microns.

28 – 51 (Canceled)

52. (Original) The method of claim 1, wherein said sintering occurs before any anodization.

53. (Original) The method of claim 1, wherein said sintering occurs after at least one anodization.

54 – 55 (Canceled)

56. (Currently amended) A method of making a capacitor anode comprising sintering a valve metal powder in the presence of an iodine source to form a sintered bonded valve metal powder, and anodizing said sintered bonded valve metal powder to form said capacitor anode, wherein said valve metal powder is niobium or wherein said valve metal powder is tantalum powder having a BET of from about 0.1 m^2/g to about 10 m^2/g, a Scott density from about 10 g/in^3 to about 40 g/in^3, and a particle size from about 30 nm to about 10 microns.

57 - 90 (Canceled)

91. (Previously presented) The method of claim 1, wherein said valve metal powder is

tantalum powder having a BET of from about 0.1 m^2/g to about 10 m^2/g, a Scott density from about 10 g/in^3 to about 40 g/in^3, a particle size from about 30 nm to about 10 microns, an agglomerate size of from about 0.1 micron to about 1,000 microns, a pore size distribution of from 0.0001 to about 50 microns, and a tantalum flow of from 70 m/g to about 300 m/g.

92. (Canceled)

93. (Previously presented) The method of claim 1, wherein said porous bonded valve metal powder has a shrinkage of about 0%.

94 - 96. (Canceled)